

What is claimed is:

1. A service providing apparatus,  
comprising:

5       program inputting means for inputting a  
server program for executing a service;

      program activating means for activating the  
server program;

      program executing means for executing the  
server program;

10       service condition storing means for storing a  
service condition about a service that is provided;

      service registering means for registering a  
service to a directory along with its service  
condition; and

15       communication controlling means for  
controlling a communication,

      wherein the service condition of the service  
is registered to the directory along with location  
information of a server that provides the service.

20       2. The service providing apparatus as set  
forth in claim 1,

      wherein said communication controlling means  
controls a communication with a transmitting apparatus  
through a bi-directional network.

25       3. The service providing apparatus as set  
forth in claim 1,

      wherein said communication controlling means

controls a communication with a receiving apparatus through a bi-directional network.

4. A transmitting apparatus, comprising:  
communication controlling means for  
5 controlling a communication with a service providing apparatus;

directory registering means for registering  
directory information received through said  
communication controlling means;

10 directory storing means for storing the  
registered directory information; and

transmitting means for transmitting the  
content of said directory storing means to a receiving  
apparatus,

15 wherein information about a plurality of  
servers that provide the same service is stored to one  
directory entry,

wherein a server selection algorithm  
corresponding to the service conditions of the servers  
20 is added to the directory entry, and

wherein the directory information containing  
the server selection algorithm is stored to said  
directory storing means.

5. The transmitting apparatus as set forth  
25 in claim 4,

wherein the directory entry is identified by  
a service name.

6. The transmitting apparatus as set forth  
in claim 4,

wherein the information about the servers  
contains the locations of the servers.

5 7. The transmitting apparatus as set forth  
in claim 4,

wherein said transmitting means transmits  
directory information to a receiving apparatus through  
a broadcasting network.

10 8. A receiving apparatus, comprising:

receiving means for receiving directory  
information;

directory storing means for storing the  
received directory information;

15 directory searching means for searching the  
content of the directory corresponding to searching and  
executing requests of the user;

client activating means for activating a  
client program for receiving a requested service  
20 corresponding to the searched result;

client executing means for executing the  
activated client program;

client executing means for executing the  
activated client program; and

25 communication controlling means for  
controlling a communication between a client and a  
server,

wherein a desired service is searched from the directory and a server selection algorithm stored in the searched directory entry is executed so as to select a server connected to the client.

5           9. The receiving apparatus as set forth in claim 8,

          wherein the directory entry is identified by a service name.

10           10. The receiving apparatus as set forth in claim 8,

          wherein the directory entry contains the locations of the servers.

          11. The receiving apparatus as set forth in claim 8,

15           wherein the server selection algorithm is executed with reference to service conditions of the directory entry.

          12. A receiving method, comprising the steps of:

20           receiving directory information from a transmitting apparatus;

          storing the received directory information;

          searching the stored directory for a desired service corresponding to a search request and an execution request of the user;

25           executing a server selection algorithm stored in a searched directory entry so as to select a server

connected to a client;

activating a client program for receiving the  
requested service from the selected server; and  
executing the activated client program.

5

the client will be the first to  
the client will be the first to  
the client will be the first to  
the client will be the first to  
the client will be the first to  
the client will be the first to  
the client will be the first to  
the client will be the first to  
the client will be the first to  
the client will be the first to